April 2023 ISSUE NO. 625



The Raleigh Amateur Radio Society's

ECITER

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays
 8:00 PM on 146.64.
- RARS meets for a monthly dinner on the First Tuesday of each month.
- On the fourth Tuesday of every month, in-person meeting at Ridge Road Baptist Church where there will be project tables, demos, snacks, and socializing.



PUBLIC SERVICE EVENTS

Interested in helping? Visit https://www.rars.org/public-service.php

frequently for our ham public service schedule.

RARS General Meeting

Main Topic: Repeater Update by

Chuck DeCourt, W3WZN &

Danny Hampton, K4ITL

Date: April 11, 2023

Time: Meeting at 7:30 PM, informal

gathering at 7PM on Zoom.

RARS In Person Meeting

Date: April 25, 2023

Where: Ridge Road Baptist Church

Time: 7:00 PM

On the fourth Tuesday of every month. In-person meeting at Ridge Road Baptist Church where there will be project tables, demos, snacks, and socializing.

RARS Officers

PRESIDENT

John Honeycutt N8ZU 919.417.2477 jfh49@bellsouth.net

VICE PRESIDENT

Chuck Till K4RGN k4rgn@arrl.net

SECRETARY

Mark Kilmer KM4JRH 919.676.0110 mark.kilmer@gmail.com

TREASURER

Greg Seamster KE4PAX 919.859.0029 KE4PAX@arrl.net



The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Regular dues for licensed amateurs are \$18 per year. (From July 1 through June 30.) Additional licensed immediate family members pay \$5 each per year. Dues for licensed full time students and licensed seniors 60 and over are \$12 per year. Unlicensed individuals may become associate members for \$9 per year. Applications for membership are available from the treasurer or on the RARS web site.

https://www.rars.org

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the Saturday that is ten days before the general meeting. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

Click on RARSfest

RARSfest

April 8, 2023, 8:00 AM - 3:00 PM, Raleigh, NC

Only a few days left until the 49th Annual RARSfest™ and the ARRL NC State Convention!

Brought to you by the Raleigh Amateur Radio Society

NC State Fair, Jim Graham Building, 100,000 Sq. Ft. All Indoor.

Gate 5 - Youth Center Drive, Raleigh, NC, GPS: 35.7944, -78.7159

There will be signage on both ends of Youth Center Drive and at Gate 5.

FREE PARKING

Talk-In on W4DW, 146.64 MHz - 0.6 Offset, No Tone

- Huge All Indoor Flea Market with 230+ Tables
- Satellite Communications Demonstration
- Commercial Dealer Booths
- Walk-In License Exams at 11:30
- Hands-On You-Build-It Project Table
- Door Prizes
- Meetings and Forums

Cousin's Confections will have food and beverages for sale in the restaurant area, including assorted Danish, sausage, bacon and ham biscuits, assorted juices, and fresh brewed coffee for breakfast, and burgers, hot dogs, BBQ pork sandwiches, assorted wraps, soft drinks, and lemonade for lunch!

See you there!

March 14, 2023 RARS meeting

The meeting was held on Zoom. Many members connected from 7PM on. The meeting started at 7:30 PM. President John Honeycutt, N8ZU, ran the formal part of the meeting. John opened the meeting with the pledge to allegiance. We use to have a birthday cake for the RARS birthday. On Zoom we just mention it. John spoke about the RARS awards that are given at this meeting every year. A few months ago, Chuck Littlewood asked members for names of people who have helped out in the past year. He makes the list. John showed the two plaques and one of the certificates. He read the list of awards. Nancy, KB2TNR, discussed the RARS fest. Alan, AB4OZ, spoke about the free AB4OZ hamfest. Jeremy, K2HJX, spoke about the RARS public service events. Tadd, KA2DEW, we will have our in person meeting on March 28 at the church. John stated that the RARS board meeting is March 21 on Zoom. The next outing of the RARS outing group will be Saturday March 18. Brantley sent out an email about it. The minutes for the meeting are on page 27.

Chuck Till, K4RGN introduced Jon, WB4ERA for the presentation. The presentation was "The future of radio spectrum" presented by Jon Siverling, WB3ERA. He is a member of the ARRL staff.

March 2023 RARS AWARDS

Plaques:

- Tom Lewis, N4TL In Appreciation as RARS Vice President, 2014 to 2022.
- Hank Montgomery, K4HM In Appreciation as RARS Webmaster 2009 to 2022.

Certificates:

- Dale Pendleton, W4AUV In appreciation for working with the family of Bob Keys, NA4G (SK) and the ham community in disposing of his radio gear for them to the benefit of RARS.
- Dan Sears, KD4AGQ and Marisa Sears, KJ4TAL In appreciation of their Extraordinary Contributions to Hams Public Service by Supporting Public Service Events
- Brantley West, K4CBW In appreciation for creating and implementing the RARS Parks on the Air Monthly Outings to the benefit of RARS Members, potential RARS Members and the Ham Community.
- Joe and Liz White, WA4GIR/KO4CK –In appreciation of their continuing to provide RARS
 Ham License Exams and for moving to the Laurel MD VEC Free Exam System.
- Chris Cancilla, W4CEC In appreciation for regularly providing amateur license classes and testing
 in the greater Raleigh area for several years. Also, for providing a link between ham radio and the
 regional Boy Scout Community.

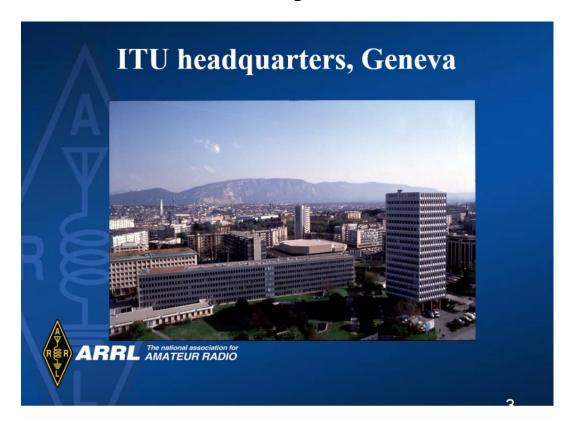
March 14, 2023 RARS meeting, continued

- Tom Lewis, N4TL In appreciation, as current RARS Exciter Editor, for continuing to provide a First Class RARS Newsletter and sharing it with other clubs.
- Marvin Hoffman, WA4NC In appreciation as current ARRL NC Section Manager. Marvin has supported RARS and RARSfest Forums. He keeps the NC Hams well informed with his regular section newsletters.
- Bill Morine, N2COP In appreciation as the ARRL Vice Director of the ARRL Roanoke Division and past NC ARRL NC Section Manager. Bill has supported RARS and RARSfest with Forum and Booth participation.
- Dwayne Ayers, N4MIO In appreciation for his dedication as NC QSO Party Awards Manager and committee member more than ten years. He has recruited sponsors for several of the awards in the competition. Dwayne is the QSO Party/RARS Administrative Liaison.
- Greg Hauser, W3FIE In appreciation as the Statewide Interoperability Coordinator with NC Emergency Management, for his outstanding and unwavering support in the use of trained ham operators for Ecomm in public settings in NC.
- Alan Pitegoff, AB4OZ In appreciation for being the RARS Board Representative for the FM Committee and diligently maintaining the RARS Repeaters.
- Tadd Torborg, KA2DEW In appreciation for promoting and leading the RARS Fourth Tuesday "hands on" Ham Gathering to the benefit of RARS and the ham community.
- Mike Murphy, WA4BPJ In appreciation for running the weekly RARS Sunday Night Ham News Net for several years.
- Charles Swindell, WB4DCM In appreciation for his good work in promoting all the Activities of the NC QSO Party and as a committee member for several years.
- Brantley West, K4CBW In appreciation for working with Carl Davis, W8WZ and obtaining for RARS
 the 2022 ARRL Equipment Grant. Also, for getting the NCSU Students and Station activated.
- March 2023 RARS AWARDS Continued
- Joseph Schoedl, KO4TCY In appreciation for helping revive the W4ATC NCSU Radio Club, by assisting with antenna work, holding recruiting events and being on the air.
- Theo H. Holshouser, KQ4ACU In appreciation for helping revive the W4ATC NCSU Radio Club, by assisting with antenna work, holding recruiting events and being on the air.
- Carl Davis, W8WZ In appreciation for working with Brantley West, K4CBW to obtain for RARS the 2022 ARRL Equipment Grant. Also, for successfully reorganizing the RARS Radio Station Trustees.
- Julia Roster, KT4JR In appreciation for doing an excellent job as the RARS Nets Manager.

March 14, 2023 RARS meeting, continued



Jon Siverling, WB3ERA



One of Jon's slides

March 14, 2023 RARS meeting, continued

TL	Tom Lewis, N4TL Raleigh	EN	Ernie NC4EW Oak Ridge	LR	lee rogers wb4 drj
	Mark - KM4JRH - Raleigh	FW	Frank W4CWA	LK	Leila KO4ZTR Raleigh NC
U-	USA - Siverling J	GK	Gary, KQ4BTC, Raleigh	МК	Mark KB4CNQ Raleigh
CK	Chuck, K4HF - Raleigh		Greg KE4PAX Raleigh	MS	Mike Salmi, AE4IM, Fuquay
	Tadd (KA2DEW) Torborg	JK	Jeremy K2HJX Raleigh	2	N4BJH Joe Wake Forest
AA	Alan AB4OZ	JK	Jerry KE4TTS Cary, NC	PK	Patrick K3PMH Cary
	Bob K4RLC SC	JW	Jim W1XR	PW	Paul WD4CMS
BW	Bob Woodson	JA	Joanne AA3N	RK	Richard K7RLH - Apex
BS	Bruce Sherman KI4PAC Cary	JK	Joe KM4WRQ	RK	Richard Kroeger N1FUA Apex
cw	Carl W8WZ Garner, NC	JH	John Honeycutt N8ZU Raleigh	0	Ryan Reed
cw	Charles WB4DCM Raleigh	JR	Julie Royster KT4JR	SK	Sam KQ4AQJ Raleigh NC
ст	Chuck Till K4RGN Raleigh	KN	K4ACS-Smitty/Raleigh NC	T-	Tom - NC4TS - Lake Royale
DK	David K4DBZ Wake Forest	KL	K4BYN Louis	TK	tom karches
DW	dennis wz0q Raleigh	KN	KB2TNR Nancy Torborg: Raleigh	9	Tony O'Connor - K1OC - Apex
DK	Denny KO4IBL Raleigh	KL	Ken Latchum AD4GX Raleigh	3	Tyler KO4BZA
DA	Doug AD4UL Melbourne, FL	LK	Larry K4LXV Raleigh	WK	Will KQ4CDN Durham

48 people attended

Monthly In-Person RARS Gathering, March 28th 2023

If you've never been, this is a new kind of ham club meeting. We chat, we educate, and we play with radios, power supplies, wires, antenna analyzers, and do show and tell of our projects. 2011 Ridge Road, Raleigh NC, Indoor activities start at 7pm. Come when you want. We start packing up at 9pm. Leave when you want. We'll be putting up dipoles in back of the church starting at 6pm. Children who you'd trust with hot and sharp tools, or \$1000 radios, are welcome.

73 Tadd, KA2DEW



Jeremy Lindsley,K2HJX

Dennis Keith, NC4DK



Stephen Haffly, NY4NC Nancy Torborg, KB2TNR



Ham Radio Publix Service poster



Doug Wall, N3LTV
Pictures by Tom, N4TL

Fourth Tuesday RARS Monthly Event Continued



Picture at the RARS In Person Meeting



Picture at the RARS In Person Meeting

Pictures by Tadd, KA2DEW

Future RARS Meeting Topics

Titles, topics, and speakers subject to change.

May: The Internet of Things. Todd Ellis N2XL.

June: RARS Field Day Arrangements. Curt Phillips W4CP.

July: Preparing for SK. Dino Papas KLOS.

August: Contesting 101. Carl Davis W8WZ.

During the Zoom meetings please keep your microphone muted. Please edit your name so your Name, Call and Location are shown.

RARS Repeaters in Raleigh

146.640 And 444.525

Join us for the nightly RARS net at 8 p.m. on the 146.640 repeater. All hams holding a Technician class license or higher are invited to check in. We welcome both RARS and non-RARS members to the net.

There is a net Listing on the RARS web-site click here. https://www.rars.org/nets.php

March 2023 RARS Net Report

March 2023 Net Report

Thirty one 2m nets:

424 checkins,

688 minutes duration

Julie Royster, KT4JR

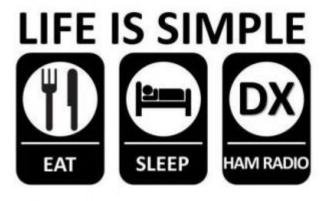
RARS Member Birthdays

Devin	KN4FVH	04/01
Bill	KO4IBN	04/01
Roger	KB4FEU	04/02
Bob	W4TTX	04/03
Rob	KM4MLY	04/03
Patrick	KN4YEH	04/04
Dean	KM4WRO	04/06
Garry	KM4MMC	04/07
Anna	KO4SHN	04/07
Ginger	KD40KP	04/08
Julia	KT4JR	04/09
Mark	KJ4NPF	04/09
Dennis	NC4DK	04/10
Bob	K2QJ	04/11
Tim	KO4FJW	04/12
Dave	K4KDP	04/13
Cindy	KB8LVU	04/15
James	N7JLS	04/15
Thomas	N4IZE	04/15
Tom	NC4TS	04/15
Peri	KG4IVD	04/16
Ryan	N7RYN	04/17
Charles	KM4MBS	04/17
Larry	W4LEC	04/19
Rusty	KQ4CAN	04/19

Kirk	KI4RK	04/19
Bill	N0FSD	04/19
John	W4WWD	04/20
Troy	KN4WSO	04/22
Fin	NC4FG	04/22
MO	KO4WIV	04/22
Pete	KI4LWQ	04/23
Joanne	AA3N	04/23
Dave	KG40PZ	04/24
Eric	WO2S	04/25
Patrick	W4NMW	04/25
Charlie	WA4OSS	04/27
Chris	K4RUF	04/27
Joe	KT4JOE	04/27
Glen	KE4NPZ	04/27
Kirk	KM4RHF	04/27
Tad	K3TD	04/28
John	NC4JP	04/29
Michael	KD40KR	04/29
Stan	W2CK	04/29

New Member

Randall Ricker	KQ4GGU



HAM RADIO LUNCHEON

Everyone is welcome!

Every Thursday at 11:15 AM, New York Diner, 909 McKnight Drive Knightdale.

https://www.facebook.com/NewYorkDinerNC

Check the latest information on the AB40Z QRZ entry. QRZ.COM.

Monthly In-Person RARS Gathering

Next RARS Gathering on March 28.

Ridge Road Baptist Church, at 2011 Ridge Road, Raleigh

Part show-and-tell, part maker faire, part operating event, the RARS Gathering is the event to attend if you want to find out about the local ham community, meet other ham radio operators, see hands on demos of old and new ham radio equipment, get on the air, and exchange ideas in a fun forum. Members and non-members are welcome.

The meeting starts at 7:00 pm in the Fellowship Hall, but we start setting up at 6:00 pm, and you are welcome to bring your own ham radio equipment and projects to demonstrate, show off, or just work on with other like-minded hams -- we have plenty of tables. You might also find sources of coax, connectors, zip cord, Powerpoles®, and whatnot.

RARS Membership links

Use the following link to verify / update your membership profile. https://www.rars.org/userprofile.php

Use the following link to renew your membership.

https://www.rars.org/membership_renewal.php

Free AB4OZ Hamfest, Weather permitting

The free AB4OZ Hamfest will be Saturday, May 13, 2023. Setup at 9AM. Start time is 10AM. New location, Golden Corral Restaurant rear parking lot. 3551 Grenelle street, Raleigh NC 27603.

Check the latest information here **QRZ.COM**.

Other Hamfests, Raleigh April 8; Winston Salem April 15.

Dismal Swamp Activation – February 2023- Bob K4RLC

The Dismal Swamp is a lovely place!



The goal for this winter was to activate the Dismal Swamp in northeastern North Carolina, both as it is a relatively rare area, and during the summer it is full of critters like snakes, gators, bears, and mosquitoes as big as birds. So, in February I did a three day trip. First, I activated the Dismal Swamp State Park (K-2727) in Camden County North Carolina, off US Highway 17. This state park contains some historically important lands to the US. In pre-revolutionary times, George Washington actually bought some of the swamp land and attempted to drain it to make it farmland. His plan failed, but there is still a marker for his house on the Virginia side. Indigenous people lived here 13,000 years ago, and flourished off the rich

fish and animal life. During the Civil War, the Dismal Swamp was an important part of the Underground Railroad, for those escaping from slavery in the South to freedom in the North. Some slaves used ancient Indian villages as the foundation for building communities deep in the swamp. There are still remnants of this rich history. Originally, the Great Dismal was over a million acres, but now is only half that size. -To make this activation more interesting, you first must go to the Gate Keeper and sign in with your name and give the model and color of your car before you can enter the park. This is to keep track of lost souls who might wander off the path in the swamp, never to be found. The Gate Keeper also controls the bridge over the Dismal Swamp Canal, which is part of the Intercoastal Waterway up the East Coast of the United States, sometimes called a water way Interstate. This canal was also historically important for transporting materials in the 1800s. During World War II, when German U-Boats torpedoed merchant ships off the coast of North Carolina, the Dismal Swamp Canal became an important waterway for military transport. Once you enter Dismal Swamp State Park, there are several hiking trails along the Canal and back into the Swamp. One even takes you by a Moonshine Still which unfortunately was not still operating. I set up the trusty ICOM-706 MkIIG at a picnic table on 20 CW, and soon had a nice pile up going. Someone spotted me on the POTA site and RBN. Soon, I was getting emails to my cell phone asking for contacts. Little did I know how rare Camden County was, especially on the 40 and 20 CW bands.



-I wish I had had more time to explore Dismal Swamp State Park, including walking the 20 mile path along the Canal. But I wanted to go to the Dismal Swamp National Wildlife Refuge (K-0566), which was over an hour's drive away, with the entrance across the border in Virginia. On the way, I got an email from a ham in Hungary who needed a nearby county on 20 CW - Pasquotank County. Since it was only a bit out-of-the -way, I thought the least I could do was to drive there and help an overseas fellow ham. I set up the rig in the back of a Truck stop parking lot, and was able to work Jeri on the first try on 20 CW. It was great to make someone very happy. I then continued on my trip to the Virginia side of the Dismal Swamp. You drive way back in the woods and think you'll never get there, only to finally see an entrance sign. There is not much to the Dismal Swamp National Wildlife Refuge other than a big, natural swamp. However, there is a 6 mile, one lane road that goes deep into the swamp to beautiful Lake Drummond. It's origin is unclear, possibly from a meteorite strike or "the Fire Bird" of Indian lore - which could e the same event.



The drive was anxiety-provoking but pleasant ending at Lake Drummond, the second largest natural freshwater lake in Virginia. Lake Drummond also has an interesting history, in that its water was barreled for Transatlantic voyages before modern water treatment was developed. Its freshwater has tannic acid from the decaying vegetation, which keeps it fresh and tasty. Legend also has it that the lake may be haunted by ancient peoples. I set up the station beside the lake and again ran another pile up. While the tripod was stable, the wind got gusty and blew the Buddipole over, breaking one of the whips. Fortunately, I had an extra whip and realized that to keep this from happening again, I needed to bungee the mast to a wooden railing. On the way back to the campsite, the sun was setting, it was becoming dark, and you could hear the woods come alive with a symphony of frogs, cicadas, and animal noises. While lovely, I would not want to spend the night there. Historically, the Dismal Swamp has attracted several notable literary types, including Longfellow, Edgar Allen Poe, and Robert Frost; they came seeking solace in its darkness. Several poetic works are based on The Ballad of the Dismal Swamp by Thomas Moore (1779-1852), which is based upon this true (?) story:

"They tell of a young man, who lost his mind upon the death of a girl he loved, and who, suddenly disappearing from his friends, was never afterwards heard of. As he had frequently said, in his ravings, that the girl was not dead, but gone to the Dismal Swamp, it is supposed he had wandered into that dreary wilderness, and had died of hunger, or been lost in some of its dreadful morasses."



-As neither of the Dismal Swamp activation sites allow legal camping, the closest North Carolina State Park with camping is Merchants Millpond State Park (K-2745). This is a very nice, small state park with a lake of his own. There, I set up an inverted V for 40 CW the next morning on a push-up carbon fiber mast. This allowed me to work stations more local, especially Virginia, while also reaching stations in the Midwest & NY/NJ area.



Overall, it was an exceptionally pleasant trip and I would like to go back to have more time to explore the Dismal Swamp. One aspect of this activation that I did not appreciate ahead of time was the interest it evoked in county hunters. These are hams who try to work all 3000+ counties in the United States! I had emails when I got back from other hams who needed the rare counties in that area that I had not activated, or needed them on a different band. One was from a 90-year old ham who needed Camden County on 40CW to complete all 100 counties in North Carolina. I may go back just to help him. The websites for the county hunters are Marac.org and Countyhunterweb.org. This is another way to get lots of CW activity while also making some hams really happy, especially if you activate from the rare counties in your state.

On this trip, there were no medical calamities like those I experienced on Stone Mountain, just a few token abrasions and lacerations. I really enjoyed having the Solis Pocket, the smallest Winnebago built on a Dodge RAM commercial van chassis. There was no external power at the campsite, so I was "boondocking" it. The Solis is perfect for boondocking, as it has a 140 Watt solar panel on the roof, powering two 100 amp hour batteries. These power a refrigerator, LED lights, electricity for the water pump, and other DC current needs. The propane tank on board powers a very nice Truma German built furnace to keep you toasty, as well as a two burner stove. It is definitely a step up from tent camping, but not as luxurious or bloated as some of the bigger RV vehicles.





Bob Conder on the BC HMY Britannia

-Going forward, this summer we are looking forward to our W4 Summits-On-The-Air (SOTA) activation in the Virginia mountains at the end of April. Our large group will be at Stony Fork Campground in the Washington and Jefferson National Forest. It is near the Appalachian Trail and has many SOTA peaks nearby to activate. Please look out for our group when we're there, as activators need hunters for everything to work out. Most of us have a KX2 type rig and only operate CW.

I encourage every ham to operate outdoors: whether from a nearby state park, a SOTA mountain peak, or an old volcano on St. Lucia – ham radio is much better in the fresh air!

73 de K4RLC Bob

Interesting Websites and Information

HF Propagation Map

http://hf.dxview.org/

This map shows real-time radio propagation from stations operating on 11 bands between 1.8 and 54 MHz in the amateur radio service. The display shows worldwide activity from the last 15 minutes and is automatically updated about every minute. JavaScript must be enabled to use see the real-time graphics.

Maximum usable frequency (MUF) is the highest frequency that supports communication between two points. On this map, MUF can be considered the maximum used frequency, since the display is based on real-time data.

Data for the map is gathered from several online sources: WSPRnet, Reverse Beacon Network (CW, FT4, FT8), PskReporter, and DX Cluster. Some of these sources provide signal-to-noise ratio (SNR) information.

SNR can be used to determine if a particular path supports certain modes like Morse code (CW) or single sideband (SSB). The map indicates SNR levels with three different per-band shades: SSB (SNR > 10), CW (SNR > -1), or digital modes (which can decode down to an SNR of about -28).

Temperature Compensated Crystal Oscillator for ICOM radios

This was in the ICOM groups IO messages.

From Martin Perner, IW3AUT in Italy. I want to announce that I have designed and built a new **High stability module** for ICOM transceivers. This module can replace the CR338, CR282 and CR293 found in ICOM radios.

http://www.iw3aut.altervista.org/wordpress/?page_id=2030

They are used in these ICOM models IC-7400, IC-746 PRO, IC-707, IC-718, IC-77, IC-78, IC-970E/H, IC-706MKIIG, IC-706, IC-775, IC-765, IC-746, IC-732, IC-736, IC-737, IC-R75, IC-R72, IC-910, IC-820, IC-821, and IC-R8500.

Charlotte NC Hamfest photos

Thanks to Nick England, K4NYW For the hamfest pictures.

https://photos.app.goo.gl/fzRrezQBqFFS5yNM8

http://www.navy-radio.com/

Interesting Websites and Information, continued

Computer Museum of America

The Computer Museum of America (CMoA), located in a suburb of Atlanta, GA, was created to preserve this history, and educate visitors on the past and future of computing, empowering the innovators of tomorrow.

From room-size supercomputers to minis, peripherals, and one of the world's broadest collections of personal computers from a vast number of manufacturers. Many rare prototypes and one-offs are represented.

https://www.computermuseumofamerica.org/

Interesting articles about vintage equipment etc.

https://nvhrbiblio.nl/biblio/boek/ARRL%20-%20Vintage%20radio.pdf

Oscilloscope Music

This is an amazing video. It shows how some people make music and display it on an

Oscilloscope. https://vintagetek.org/oscilloscope-music/

This came to me from the Vintage TEK Museum.



Interesting Websites and Information, continued

Copied from the Tarheel Scanner group.io about Aircraft Flight Tracking websites.

John, K3JMS, joined us on the zoom meeting this past Monday and really had a lot of good information about monitoring and displaying ADS-B aircraft information. Here are my notes.

Some good web sites for ADS-B monitoring are:

https://globe.adsbexchange.com/ - you will probably see more military aircraft here https://www.radarbox.com/@35.66469,-78.82670,z10?rightSidebar=liveFlightList - This is information from the AirNav hardware

https://planefinder.net/

The web sites are okay, but they can be very slow.

Here are some iOS apps that I have tried and liked on the iPad and iPhone

• OpenADSB app - this was about \$11, but is the best if you want to also see military aircraft, there is a lot of customization with this app and the app is fast and easy to use. Flightradar24 - another good app, but may not show many military aircraft objects

I'm thinking that if I put up an ADS-B receiver, then the receivers outlined on the ADS-B Exchange may be good.

https://www.adsbexchange.com/how-to-feed/adsbx-custom-pi-image/ - Hardware and software needed

https://store.adsbexchange.com/products/adsbexchange-com-r820t2-rtl2832u-0-5-ppm-tcxo-ads-b-sdr-w-amp-and-1090-mhz-filter-software-on-industrial-microsd - their USB receiver with an antenna

https://www.inovato.com/ - a possible RaspberrhyPI replacement that is cheaper. I may look into using this with the above USB receiver.

John is thinking about giving a presentation on one of our Zoom meetings outlining his setup and details about ADS-B receiving. (Please let him know that you are interested!)

Remember, our Zoom meeting are the odd months, and the in-person meetings are the even months at the IHop in Holly Springs.

Kelly Mills AE4FG

Tarheel Scanner / SWL group

The Tarheel Scanner / SWL group will begin to have meetings in the following format. On odd months we'll have Zoom meetings and on even months we'll have in-person meetings. This will give everyone a chance to stay involved.

Our next meeting is at the IHOP in Holly Springs at 6:30 on April 17th.

As always, we have our meetings the third Monday of each month at 6:30 in person and 7:00 on Zoom nights.

Follow us on the "Tarheel Scanner/SWL Group" on Facebook and on the TarheelScanner group at Groups.io.

Thank you, Kelly Mills AE4FG

RARS Monthly Supper, IHOP Restaurant

All members and guests are welcome to the monthly (first Tuesday) RARS Supper, 6:30PM, at the IHOP Restaurant, 7471 Six Forks Road, Raleigh. The restaurant is on the corner of Sawmill and Six Forks Roads. After entering the restaurant and lobby, move to the left to the glass window enclosed private room. Informal and Dutch, just bring your appetite and best rag to chew.

73. Chuck, K4HF

RARS Classifieds

Copied from https://www.rars.org/classifieds.php

The items below were listed within the last 30 days on the RARS website.

Check the RARS Classified List on the RARS website regularly for new items.

Free and almost Free items

Posted March 22nd, 2023 by: W4NPN

Contact: fbW4NPN@gmail.com

Go to my surplus item page for a listing of free or nearly free items. Most are heavy iron; transformers,

oil-filled electrolytics, chokes, but also tubes and other stuff. Find the list here:

https://www.w4npn.net/items-for-sale-surplus-to-my-needs/

Contact me by email if you want something. I'm thinning the herd.

FS: DX-60B

Posted March 21st, 2023 by: W4BOH Contact: infomet@embargmail.com

Nice transmitters, but this one is bedraggled from storage (dry).

I have no idea if it works, since it's a donation to DFMA, but it's not butchered.

Can be picked up in Hillsborough or Morrisville OR delivered to RARSfest.

\$50.

Wilson

Wanted: S-40B Tuning Cap

Posted March 21st, 2023 by: W4BOH Contact: infomet@embargmail.com

Are you parting out an S-40B?

I have an otherwise decent one with a bad tuning cap...front bearing missing a ball.

So I'm looking for a cap or would happily sell you this receiver for \$25.

The S-40 is WAY better than an S-38!

It's a donation to OCRA (Orange County Club).

WL

RARS Classifieds continued

11 items for sale

Posted March 20th, 2023 by: N4TL

Contact: <u>n4tl2@yahoo.com</u>

Astron power supply RS-20A, 20 AMP 12 volt, \$55

Astron Power supply, RS-20M, 20 amp, 12 volts, with meter. \$65

Google Home, control your smart home with this device. Untested. \$5

Heavy-duty keyboard tray for under desk mounting. \$15

JRC Headphone ST-3, 300 ohms, mono. \$10

LabVolt AA780A RF Signal generator 100 KHz to 110 MHz. \$50

Lambda power supply LH-123AFM, Variable voltage, 40-volt max. 1.3 amps, \$50

MFJ Versa tuner II, MFJ-945. \$70

Microchip development board DS4000, Curiosity board. \$5

TP-Link five port gigabit switch \$5

Workbench light with arm \$15

Contact me by email N4TL2@yahoo.com

Misc Vintage Ham Radio Gear

Posted March 20th, 2023 by: K4HF

Contact: k4hf953@yahoo.com

Heathkit CW/AM HF DX60B 75 Watt Transmitter with matching HG10B VFO

Excellent looking and working condition

Included is a D-104 base mike and manuals. \$145

SWAN 500CX CW/SSB HF 560 Watt Transceiver with matching 117xc Power Supply and Speaker

Excellent looking and working condition

Included is a hand mike and manual. \$295

Contact me by e mail, preferred, or (919) 630-9358 Thanks, Chuck

RARS Classifieds continued

DMR radios for sale Connect Systems

Posted March 17th, 2023 by: N4GEB

Contact: <u>brownr@mail.com</u>

2 DMR radios from connect systems CS700 HT with antenna, desk charger, programming cable and manual \$70.00

CS800 Mobile style, comes with the RT systems programming cable, software, manual and original box like new condition

\$125.00

Both are already programmed with local DMR repeaters. All you have to do is add your Call ID number to the radio. I (N4GEB) can be reached at my email address which is listed at QRZ.COM, or under the members section on this web site.

Thanks and 73s Bob

IC-7100

Posted March 12th, 2023 by: KT4EM

Contact: rwphile@gmail.com

IC-7100 for sale. Purchased Nov 2021 and includes all original equipment, manual and box. Also includes RT systems programming software, Nifty manual, AD-1-ICM headset adapter, generic 8 pin to modular adapter for use with other mics and a cupholder mount for the control head. Everything works, just need to downsize. Price for all is \$900.00.

RARS Classifieds continued

Maono USB Condenser Mike

Posted March 10th, 2023 by: WM2Z

Contact: wmelhado@gmail.com

Maono USB Condenser Microphone with gain control and adjustable table-top tripod. USB Plug-and-Play with no driver required. Usable for recording, gaming, podcasting, ZOOM, Skype, etc. \$10

Baofeng DR-1801 uv DMR ht/

Posted March 2nd, 2023 by: WZ0Q

Contact: wz0q@outlook.com

New never used dmr radio.

Asking \$75.00 or oboe

Thought Id get into dmr, but

Not interested in it. Baofeng DR 1801 uv.

919-413-5998

Dennis

Wz0q





RARS Meeting Minutes

14 March 2023 - via Zoom

Call to Order: John Honeycutt at 7:31

Pledge of Allegiance recited.

John noted the 54th anniversary of the RARS club. (Aside; no cake, but Happy Birthday to us.)

John invited guests, new members and those who had not attended a meeting recently to introduce themselves. He also invited those who had been recently licensed or had a license upgrade to introduce themselves as well.

Chuck Littlewood thanked those who participated in the nominations for the 2023 RARS Awards Night. John made the presentations and will see that the plaques and certificates will be delivered to the recipients.

Officer Reports:

- <u>Vice President</u> Programs scheduled thru July.
 <u>Treasurer</u> 450 current members. Greg covered assets, income and expenses.
- <u>The Public Service Director</u> Appreciation for opening season volunteers.
- <u>At large director</u> Alan Pitegoff Announced upcoming hamfests. John N8ZU noted that there is additional fruitful information available on Alan's QRZ page.
- <u>RARSfest Chair</u> Update on ticket and table sales. Gave a list of the door prizes and noted that things are in order to date.

Program:

Chuck Till introduced tonight's program, presented by Jonathon Siverling.

The meeting adjourned at 8:55 PM Eastern Time.

Respectfully Submitted,

Mark Kilmer RARS Secretary

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